<u>Amendments to the Specification</u>

Please replace the paragraph beginning at page 4, line 13 with the following rewritten paragraph:

The composite device is connected in a circuit with an antenna to provide a power supply for driving other circuit components, such an RFID tag or the like, or a sensor component, or a light emitting device for generating a light output signal. Multiple composite devices may be arranged in stacked array, each associated with electrically isolated antenna elements, to provide a DC output voltage of increased magnitude or antenna characteristics ~~or~~ <u>of</u> increased versatility or directionality for signal or energy pickup. Moreover, the composite device with antenna may be a resonant circuit.

Please replace the paragraph beginning at page 14, line 15 with the following rewritten paragraph:

FIG. 9 depicts a similar circuit arrangement in a half wave rectifier configuration with a single composite rectifying charge storage device 10 including a diode component 12 and a capacitor component 14. The composite device 10 is coupled with a tuned inductive antenna 11 for energization via a primary inductive antenna 211. A circuit load such as an RFID tag <u>or integrated circuit</u> 202 has a clock input connected with one terminal 30 of the antenna 11, and ~~power and~~ <u>a</u> ground ~~inputs~~ <u>input</u> coupled to the opposite terminal 46 of the antenna. Power input to the ~~chip~~ <u>integrated circuit</u> is connected to the common conductor 20. The tag 202 includes solid state integrated circuit components as shown, and may be coupled with a data modulator 200. Once again, such RFID tags and data modulator circuit loads are shown and described in more detail in the above-referenced U.S. Patent 6,181,287.

Please replace the paragraph beginning at page 14, line 27 with the following rewritten paragraph:

An exemplary embodiment of the composite rectifying charge storage device with antenna in accordance with the present invention is illustrated in FIG. 10 for use in an RFID transponder power supply or the like. As shown the composite device comprises a diode component 12 preferably in the form of an organic semiconductor 18 mounted on a layer of dielectric material 22 forming a supporting substrate (which may be flexible) for the circuit components. An anode junction of the semiconductor 18 is coupled via a conductor 16 with a patch antenna 11 which is also mounted on the dielectric substrate 22. The opposite or cathode junction of the semiconductor 18 is coupled with a common conductor 20, also mounted on the dielectric substrate 22, forming one plate of the capacitor component 14. A second or ground conductor 24 forming the second plate of the capacitor component 14 is mounted on the dielectric substrate 22 on the opposite side thereof. A circuit load such as an RFID data and signal operating circuit 202 is connected with the common conductor 20. In operation, the RFID circuit 202 may communicate information with the patch antenna 11 either by variable loading through the composite device which will ~~charge~~ change the antenna's reflective characteristics, or by a signal generated by the RFID current in direct connection with the antenna (as viewed, for example, in FIG. 11).

Please replace the paragraph beginning at page 15, line 16 with the following rewritten paragraph:

FIG. 11 shows a schematic circuit diagram for an alternative embodiment similar to FIG. 10, but wherein the RFID circuit 202 is coupled ~~directed~~ directly with the patch antenna 211. In this variation, the RFID circuit 202 is connected to the DC output voltage produced by the composite device 10, by suitable connection across the conductors 20 and 24 (similar to FIG. 9). The patch antenna 211 is connected to the second or ground conductor

24, and a conductive element 212 of the patch antenna is connected by the conductor 16 to the diode component 12 of the composite device. In this arrangement, the patch antenna components 211, 212 provide a high frequency input power transducer for the RFID circuit 202. The composite device 10 supplies power to the RFID circuit 202, which may use backscatter connected through conductor 16 to the antenna circuit.

Please replace the paragraph beginning at page 16 line 13 with the following rewritten paragraph:

More specifically, the diode component 12 of the composite device 10 may comprise a light emitting diode (LED) for producing a radiant energy output signal when the device 10 is coupled via an antenna 11 to an inductive or other suitable AC field source, as by means of a primary inductive antenna 211 or the like. <u>The primary antenna may be a resonant L-C circuit. The primary antenna 211 is optional</u>. In accordance with one such configuration, the diode component 12 may be constructed generally according to FIG. 1, with the conductor 16 comprising an optically transparent or transmissive thin film conductive material such as indium tin oxide, or other suitable thin and optically transmissive metallic conductor, and the semiconductor 18 comprises a light emitting diode component such as an MEH-PPV polymer semiconductor or the like. In this arrangement, when the composite device 10 is coupled to an appropriate input signal, the semiconductor 18 emits a light output signal representative of the input signal. An electrical schematic of this composite device is illustrated in FIG. 2, it being recognized and understood that a reversal of the semiconductor anode/cathode connections will result in an electrical schematic as illustrated in FIG. 3.

Please replace the paragraph beginning at page 17 line 23 with the following rewritten paragraph:

FIG. 17 illustrates a circuit ~~incorporated~~ incorporating a modified composite device to provide a bidirectional edge driven rectifying and charge storage device. In this configuration, a pair of diode components 12a and 12b are coupled with opposite polarity between a common conductor 20 comprising one plate of a common capacitor 14, and the opposed terminal 30 and 46 at opposite end of an inductive antenna 11. A second or conductor 24 of the capacitor component 14 is coupled as a center tap to the antenna 11. The diode components 12a and 12b are alternately switched to a forward biased "on" state by means of an input AC field signal which may be transmitted to the antenna 11 by a primary antenna 211 or the like. An input AC field signal such as a sine waveform causes the diode component 12a to be switched to an "on" state with each positive-going peak of the waveform, as indicated by waveform, whereas the other diode component 12b is energized or switched to an "on" state with each negative-going peak of the waveform. With light emitting diode components 12a and 12b as shown, the two opposite-polarity diode components emit alternating light pulses as stimulated by waveforms of opposite polarization. In one form, the diode components 12a, 12b may comprise LED's for emitting light of different color.